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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,591	02/17/2004	Noriaki Miyazaki	60890 (47762)	3359
21874 7590 03/07/2007 EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			EXAMINER TIMORY, KABIR A	
			ART UNIT	PAPER NUMBER
			2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/780,591

Applicant(s)

MIYAZAKI ET AL.

Examiner

Kabir A. Timory

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7 and 9 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,8,10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/17/2004 & 4/25/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code on page 5, line 16 of the specification. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Objections

2. Claims 7-11 are objected to because of the following informalities:

(1) In claim 7, line 1, "**the transmitter**" should be changed to **--a transmitter--**.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5, 7, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Smee et al. (US Patent Number: 7,082,174).

Regarding claim 1:

As shown in figure 1, Smee discloses a transmitter (figure 1, 110) that transmits a signal to a receiver (figure 1, 130), comprising:

- a first transmitting means (figure 3, 310) that transmits a signal using a frame format (figure 6) that is formed by a first pilot signal in which an end portion of a known signal that has been matched in advance with the receiver is reproduced at a front of the signal (pilot reference is interpreted to be known signal) (column 10, lines 31-35), and by first transmitted binary data in which an end portion of the data is reproduced at a front of the data (stream of samples are interpreted to be binary data) (column 2, lines 42-47)
- a second transmitting means (figure 3, 330) that transmits a signal using a frame format (figure 6) formed by a second pilot signal formed by a known signal that has been matched in advance with the receiver (pilot reference is interpreted to be known signal) (column 10, lines 31-35), and by second transmitted binary data (stream of samples are interpreted to be binary data) (column 2, lines 47-50); and
- a selection means that selects one of the first transmitting means and the second transmitting means when a signal is transmitted (figure 3, 340).

Regarding claim 2:

Smee further discloses:

- a format information sharing means that shares information relating to the frame format of a signal with the receiver, and wherein, based on the information relating to

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the frame format that is shared with the receiver (the controller is interpreted to be format information sharing means. The controller sends the strongest multipath signal information to the equalizer or rake receiver) (figure 3, 370),

- the selection means selects one of the first transmitting means and the second transmitting means (figure 3, 370, column 3, lines 63-67).

Regarding claim 5:

Smee further discloses:

- first pilot signal is formed by constant amplitude zero auto-correlation (CAZAC) sequence signal (column 17, lines 42-44).

Regarding claim 7:

Smee further discloses::

- a first receiving means that receives the signal by operating a frequency domain equalizer (FDE) (the equalizer is interpreted to be frequency domain equalizer) (figure 3, 310);
- a second receiving means that performs Rake reception of the signal (figure 3, 330);
and
- a selection means that selects one of the first receiving means and the second receiving means (figure 3, 340).

Regarding claim 9:

Smee further discloses::

- a quality measuring means that measures the quality of a received signal (figure 7, 712, column 19, lines 63-65);

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- a quality information sharing means that shares quality information that relates to the quality of a signal with the transmitter (the controller is interpreted to be quality information sharing means) (figure 3, 370, column 13, lines 62-68, column 14, lines 1-2); and
- a format information sharing means that shares information relating to the frame format with the transmitter (the controller is interpreted to be quality information sharing means) (figure 3, 370, column 13, lines 62-68, column 14, lines 1-2), and
- wherein the selection means selects one of the first receiving means and the second receiving means based on information relating to the frame format that is shared with the transmitter (figure 3, 370, column 3, lines 63-67, column 4, lines 1-4).

Allowable Subject Matter

5. Claims 3, 4, 6, 8, 10, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Smee does not teach or suggest the transmitter having the specific quality information sharing means; and a multiplex number deciding means, and the selection means as recited in the claims in conjunction with other limitation in the claims.

The prior art of record, Smee also does not teach or suggest the

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receiver having the specific quality measuring means; a multiplex number deciding means; and a format information sharing as recited in the claims in conjunction with other limitation in the claims.

The prior art of record, Smee also does not teach or suggest the receiver having specific quality measuring means; a multiplex number deciding means; and a quality information sharing means as recited in the claims in conjunction with other limitation in the claims.

Conclusion


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kabir A. Timory whose telephone number is (571) 270-1674. The examiner can normally be reached on Mon - Thu 6:30AM - 4:00PM & Fri 6:30AM - 3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kabir A. Timory
February 20, 2007


SHUWANG LIU
SUPERVISORY PATENT EXAMINER